NATURAL GAS

NAPSR SOUTHERN REGION MEETING

April 2013

AGA American Gas Association

It’s a Great Time for Pipeline Safety

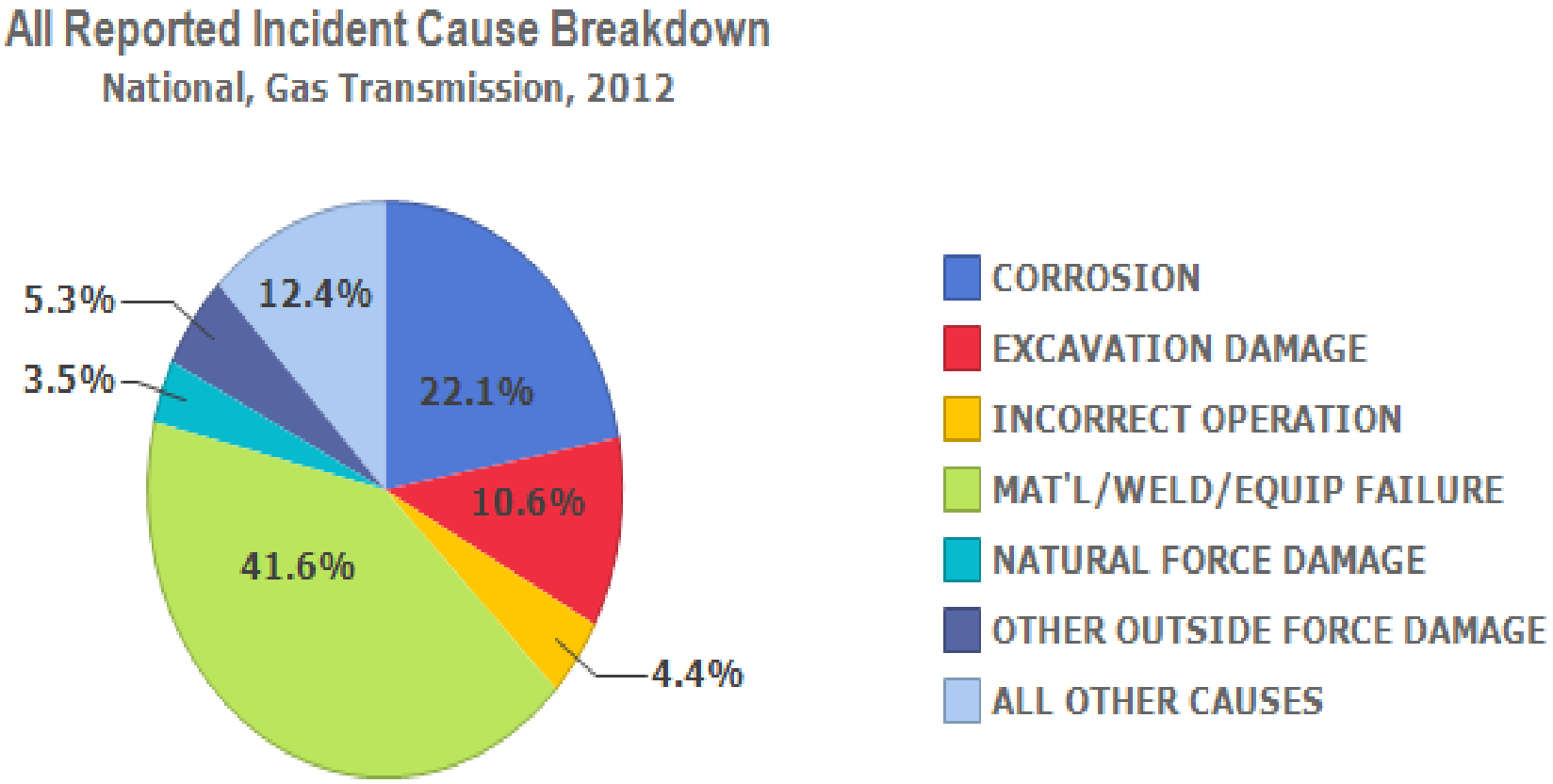
- Industry voluntary safety initiatives
- NARUC supports rate infrastructure enhancements and LDCs are filing rate cases driven by safety.
- Low natural gas prices.
- Modernization of transmission and distribution systems are being facilitated by the development of new technologies and improvements in pipe construction methodologies.

It's a Great Time for Pipeline Safety

- 2012 had fewest pipeline incidents in a decade
- 2012 fatalities the lowest since 2008
  (Distribution + Transmission)
- There were no transmission fatalities in 2011 and 2012.
- In 2011 and 2012 there were 4 serious transmission incidents and 7 injuries.

- Operator Error
- Excavation Damage
- Compressor/Pump
- Vehicle/Outside Force

113 Total Reportable Incidents



Source: PHMSA Significant Incidents Files, February 28, 2013

THERE IS A LOT OF STUFF TO DO!!

Are we doing the right stuff?

WHAT'S CURRENTLY ON THE TABLE?

- Pipeline Safety Act of 2011
- At least 39 NTSB Safety Recommendations
- Secretary LaHood's Action Plan (Maybe)
- AGA Commitment to Enhancing Safety
- INGAA Integrity Management Continuous Improvement (IMCI)
- 4 General Accountability Office Studies
- 9 Inspector General Studies
- Emergency Response Enhancements
- Automatic shutoff valves and remote control valves
- Data Quality and Analysis
- Leak Detection Enhancement (Liquids and Gas?)
- Integrity Management NPRM (IMP 2.0)
- Safety Management Systems

AGA Concern With Conflicting Paths

- Pipeline Safety Act of 2011
- 39 NTSB Safety Recommendations
- Emergency Response Enhancements
- Automatic shutoff valves and remote control valves
- Integrity Management NPRM (IMP 2.0)
- Safety Management Systems

AGA Concern With Conflicting Paths

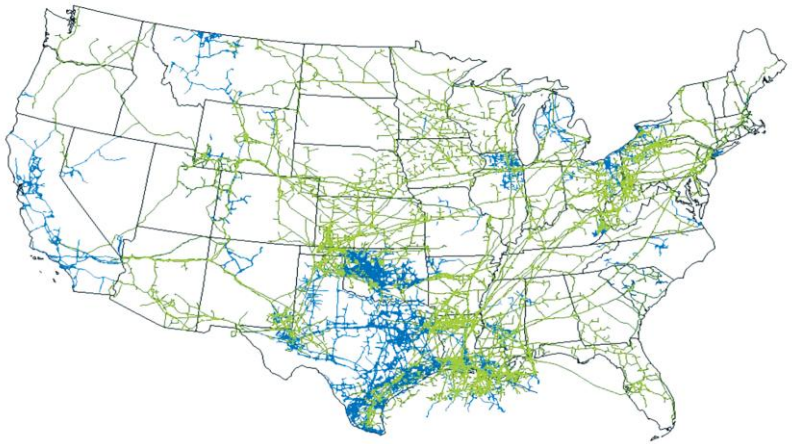
- Do you pressure test all lines without a post construction hydrotest/pressure?
- Do you add spike test to pressure tests?
- Do you focus on lines above 30% SMYS?
- Do you make all lines piggable?
- Do you install RCV/ASV to mitigate rupture?
- Do you install new leak detection devices?
- Do you ensure that valves can be closed and firefighting begin 15 minutes after a rupture?
- Do you focus on safety management systems?
- Do you expand IMP outside HCAs?
- Do you give priority to gas transmission IMP?
- Do you give priority to amending 192.619
- Do you focus on making all records traceable, verifiable and complete?

Are some of these “solutions” duplications?

Does PHMSA have a systematic approach or is it let’s do everything requested?

Pipeline Safety Act *OF 2011*

- AGA views the Act as the definitive template for the pipeline safety path forward.
- Congress heard testimony from the NTSB, PHMSA, industry, and the public. They adopted certain “solutions” and rejected others. Fundamental changes to the nation’s infrastructure are mandated and some changes where rejected. AGA may not agree with all of the solutions presented by Congress, but AGA will not second-guess them.



Pipeline Safety Act *OF 2011*

- **Remote and Automatic Valves**
  - Congress rejected amendments for mandatory valves. AGA supported legislation for study and consideration of risk-based regulations. Mandatory prescriptive installation of valves is not appropriate. Resources should be prioritized toward prevention rather than mitigation.
  - 192.935(c) is adequate for operating assessments (retrofits) and 192.179 should be amended for new fully replaced lines.

Pipeline Safety Act OF 2011

- Transmission MAOP Verification
  - Operators must identify and submit to DOT documentation related to segments with insufficient records for established MAOP by July 2013

Good communications between regulatory, industry, and the NTSB established a good criteria for adequate records. The new annual report will be useful, but not definitive.

  - For pipelines with insufficient MAOP records, *the Secretary shall require the operator of the transmission line to reconfirm a maximum allowable operational pressure as expeditiously as economically feasible.*

Pipeline Safety Act *OF 2011*

Transmission MAOP Verification

- AGA is very supporting of operator efforts to spend resources to make pipeline asset records more complete and manageable.
- There is much misunderstanding about the record verification process.
- Accurate facts should be presented.
- The case for perfect Traceable, Verifiable and Complete (TVC) records should not be overstated.

Pipeline Safety Act OF 2011

Transmission MAOP Verification

- Hundreds of millions have been spent over the last three years on asset management systems.
- Improved record-keeping improves safety.
- Record requirements are in 192.517 not 192.619.
- There are gaps in records for MAOP.
- Incomplete MAOP records do not mean records are insufficient to establish the MAOP.

Pipeline Safety Act *OF 2011*

Transmission MAOP Verification

- Congress was careful not to say that the record verification required traceable verifiable and complete records. If the 1950 pipe records were not TVC in 1970; they will not be TVC in 2013.
- Congress said, “The purpose of the verification shall be to ensure that the records accurately reflect the **physical and operational characteristics** of the pipelines described in paragraph (1) and **confirm the established** maximum allowable operating pressure of the pipelines.

Traceable, verifiable and complete records support MAOP, it does not establish the MAOP.

Pipeline Safety Act OF 2011

MAOP Pressure Test Rulemaking

- DOT must issue regulations for conducting tests to confirm material strength for untested gas lines in HCAs operating at >30 percent SMYS by July 2013. DOT must consider safety testing methodologies, including pressure testing, ILI and methods determined equally effective.

- ***AGA members have transmission lines integrated into the distribution system of 70 million customers. This system is vastly different from the interstate system regulated by PHMSA. AGA is doing a study of the potential impact to the nation's energy delivery system.***

Pipeline Safety Act *OF 2011*

MAOP Pressure Test Rulemaking

- Congress separated MAOP record verification (section c) from MAOP testing (section d). The testing section was the Senator Rand Paul amendment. There was no presumption that insufficient records required a pressure test.

- The verification section used the terms "**operational and physical characteristics**". The testing section calls for a "tests to confirm the **material strength** of previously untested" pipe.

MAOP Grandfathering Rulemaking

- The recommended NTSB grandfather rulemaking is related, but separate from Congressional pressure test rulemaking.
- The grandfather clause is 192.619(c).
- Section 192.619(a)3 is a MAOP pressure restriction clause ; not a pressure test exemption.

Pressure Testing

AGA support pressure testing pipe that has not had a post construction pressure test. It cautions that the work will be more complex, difficult, and costly then most people realize.

Hydrostatic Testing Existing Pipelines

- Clean Pipelines
- Consistent Age & Attributes
- Minimal Customer Impacts
- Failures are Rare

Hydrostatic Testing Existing Pipelines

Environmental impacts

Customer Outages

Multiple OD. W.T. SMYS & Age

Public Awareness & Concern

Limited workspace

Hydrostatic Test Planning

- Pipeline Attributes
- Environmental Attributes
- Outage Duration
- Spill Prevention
- Spill Response
- Safety
- Communications

Engineering, Design & Risk Mitigation

- Gather Existing data
- Validate pipeline and feature characteristics
- **Establish Min Test Pressure**

Outage Duration

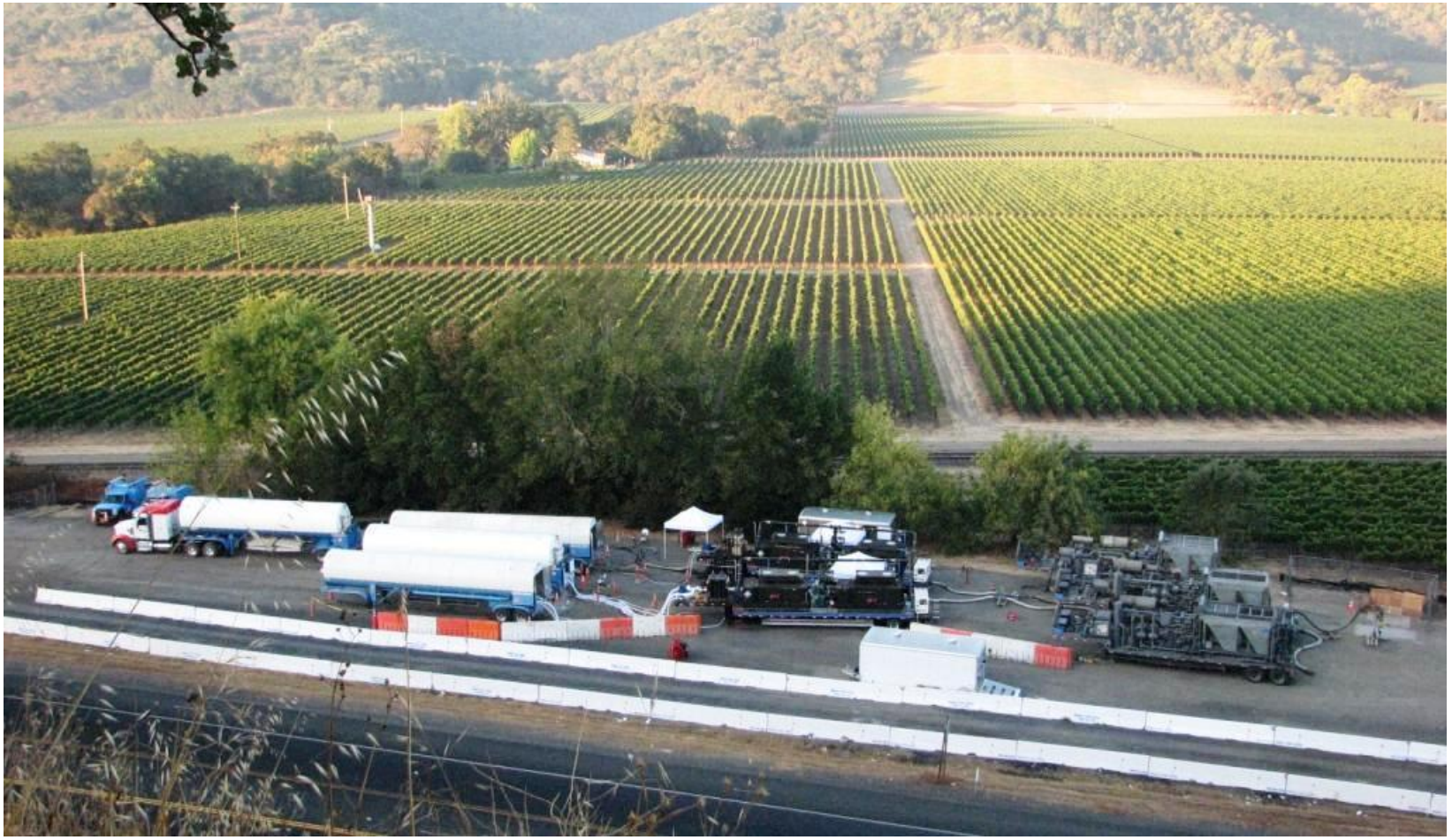
Outage Coordination

Utilization of CNG and LNG

- Tests may need to be split to support a significant distribution main or large customer
- Largest noncore customers and Power Plants are most impacted because CNG/LNG may not be able to support these loads

Outage Duration

LNG Equipment (tankers, vaporizers, compressors) Napa Valley, 2012



CNG Gap Trailer, 17,000 scf

CNG Tube Trailer, 68-150 Mscf

CNG Modules, 2,200 scf

Portable Equipment Capabilities and Quantities

	2010	2011	2013	Volume Capacity	Flowrate Capacity
LNG Tankers	3	3	7	up to 900,000 scf	
LNG Vaporizers	3	7	8		up to 500,000 scfh
CNG Tube Trailers	5	8	16	up to 150,000 scf	
CNG Injection Trailers	5	8	10		up to 50,000 scfh
CNG Double Gaps / Gaps	2	8	15	up to 17,000 scf	2,000 scfh
CNG Modules	0	0	90	2,200 scf	500 scfh
CNG Bottle Trailers	4	26	26	1,800 scf	500 scfh
CNG Module Regulators	0	0	2		2,000 scfh
TOTAL	22	60	174		

AGA Commitment to Enhancing Safety

Construction

- Expand requirements of OQ rule to include new construction.
- Review oversight procedures for pipeline construction.

Emergency Shutoff Valves

- Support the use of a risk based approach to the installation of ASVs/RCVs.
- Use of EFVs for small multi-family facilities, and small commercial services.

Integrity Management

- Advance IMP program and principles to mitigate system specific risks.
- Collaborate with stakeholders to develop and promote effective cost-recovery mechanisms to support pipeline assessment, repair, rehabilitation, and replacement programs.
- Develop industry guidelines for data management and quality.
- Support development of processes that enable the tracking and traceability of new pipeline components.

Excavation Damage Prevention

- Support strong enforcement of the 811 – Call Before You Dig program through state damage prevention laws.
- Improve the level of engagement between the operator and excavators.

AGA Commitment to Enhancing Safety

Safety Knowledge Sharing

- Review programs currently utilized for the sharing of safety information.

Stakeholder Engagement and Emergency Response

- Evaluate methods to more effectively communicate with public officials, excavators, consumers, safety advocates and members of the public about the presence of pipelines.
- Partner with emergency responders to share information and improve emergency response coordination.

Pipeline Planning Engagement

- Work with a coalition of Pipelines and Informed Planning Alliance (PIPA)

Advancing Technology Development

- Increase investment, continue participation, and support research, development and deployment of technologies to improve safety. Evaluate and appropriately implement new technological advances.

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The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 71 million residential, commercial and industrial natural gas customers in the United States, of which 92% — more than 65 million customers — receive their gas from AGA members. Today, natural gas meets almost one-fourth of the United States' energy needs.